

patentability of the amended claims in view of the prior art. The claims discussed were claims 18, 41, 42 and the product claims. Applicant also indicated its intention to submit a 1.132 affidavit showing the differences between hop pectin and beet pectin thereby distinguishing beet pectin products from the instant products. It was pointed out that inclusion of hop pectin extract in the claims would define over all of the home brew references, none of which include a separate step of extracting hop pectin from hop plants or parts or residues thereof and adding such extract as a separate step in the brewing process. It was pointed out that this separate extraction step is taken so that hop pectin can be added to the beverage without simultaneously adding additional bittering substances or additional aroma constituents. The use of hop pectin extract has the additional benefit of using pectin that is derived from an ingredient that is inherent in beer.

Support for those amendments which is not self-evident or apparent is as follows. The invention is directed toward beverages having improved foam head stability, as can be seen from the application and claims as filed. The use of a hop pectin extract finds support in the specification, page 3 lines 21-31 and page 5 line 11 and following. Support for pilsner beer is found on page 4 lines 30-33. Support for the hop pectin extract having anhydrogalacturonic acid content of 70-80% is found on page 9 lines 25-26, 32-33, and page 10 line 6. Support for the hop pectin extract having anhydrogalacturonic acid

content of 55-75% is found on page 17 lines 38-48.

With respect to paragraph 1 of the Office action, it is noted that no proposed drawing correction was filed and accordingly it is believed that this paragraph is in error.

In response to paragraph 2 of the Office action, Figs. 7-1 and 7-2 have been redrawn as bar graphs for clarity and are attached hereto. The Examiner's approval of these drawing corrections is requested.

In response to paragraph 3 of the Office action, claim 29 has been amended and claims 33 and 38 have been cancelled.

With respect to paragraphs 4-8 of the Office action, the noted phrases in claims 18 and 36 have been deleted. With respect to paragraphs 9 and 10, claim 20 has been amended and claim 38 has been cancelled.

With respect to paragraph 12, it is pointed out that the claims now define over Papazian and The Practical Brewer by reason of the fact that neither of these references teaches the step (now in claim 18) of performing a separate step of separating pectin from hop plants or parts or residues thereof to form a hop pectin extract and thereafter adding the hop pectin extract to the beverage.

With respect to paragraph 13 of the Office action, the claims define over Lutzen in view of The Practical Brewer, for the same reasons, that is, Lutzen also does not teach the step of separately forming a hop pectin extract and adding the hop pectin extract to the beverage.

Paragraphs 14-17 of the Office action cite and rely upon Bukovskii, which mentions addition of beet pectin to the wort prior to boiling. The present claims define over Bukovskii by specifying the use of hop pectin extract and specifying the proper stage of the preparation process during which the hop pectin extract is added. Furthermore, as discussed during the interview, applicants are attaching hereto a Declaration of A.J.M. Wijsman, which discusses an experiment conducted comparing the foam stabilizing effects of hop pectin and beet pectin. As stated in Paragraph 6 of the Declaration, the results of the tests were surprising and unexpected. Surprisingly and unexpectedly, the hop pectin improved the foam stability of beer by more than twice as many seconds as beet pectin. In view of the surprising and unexpected superiority of hop pectin over beet pectin, it is submitted that the inclusion of hop pectin extract in the main claim defines over Bukovskii.

As pointed out above, applicants' invention includes a separate initial step of extracting hop pectin from hop materials and then subsequently adding said hop pectin extract to the beverage during the preparation process. This procedure has the benefit of permitting an amount of foam stabilizing pectin to be added to the beverage without simultaneously adding concomitant amounts of bittering substances and aroma substances. In the Home Brew references, different types of hop, which intrinsically will contain hop pectin, are added at several stages of wort boiling and have the necessary effect of adding additional

amounts of bittering substances and aroma substances, thus altering the taste and aroma of the product. The present invention adds foam stabilizing pectin without so affecting taste or aroma.

For the foregoing reasons, it is believed that the claims as now amended and narrowed define over the applied references. Accordingly, it is believed that a Notice of Allowance is in order and is respectfully requested.

If any fees are required by this communication, please charge such fees to our Deposit Account No. 16-0820, Order No. 29865.

Respectfully submitted,

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